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TRANSMITTAL FORM

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June 14, 2006First Named Inventor
Bernd HANSENArt Unit
3721Examiner Name
T. K. TruongAttorney Docket Number
51336

| ENCLOSURES (Check all that apply) | | |
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| Date | March 5, 2009 | Reg. No. | 28,770 |

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51336

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3721

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : PATENT
Bernd HANSEN :
Serial No.: 10/582,869 : Art Unit: 3721
Filed: June 14, 2006 : Examiner: T. K. Truong
For: METHOD AND DEVICE FOR :
PRODUCING AND FILLING :
CONTAINERS :

RESUBMISSION OF BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Resubmitted herewith is the Brief on Appeal for the above-identified application, with a corrected Transmittal Form.

This Brief on Appeal was originally filed on February 11, 2009 with the appropriate fee. Although the application number on the Brief on Appeal and on the Fee Transmittal was correct, the application number on the Transmittal Form was incorrectly listed as 10/580,196, rather than the correct number 10/582,869.

Prompt and favorable action is solicited.

Respectfully submitted,



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Reg. No. 28,770

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Dated: March 5, 2008



51336

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: : PATENT
Bernd HANSEN :
Serial No.: 10/582,869 : Art Unit: 3721
Filed: June 14, 2006 : Examiner: T. K. Truong
For: METHOD AND DEVICE : Appeal No. _____
FOR PRODUCING AND :
FILLING CONTAINERS :
:

BRIEF ON APPEAL

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APPENDIX A - CLAIMS ON APPEAL

APPENDIX B - EVIDENCE

APPENDIX C – RELATED PROCEEDINGS

51336



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: : PATENT
: :
Bernd HANSEN : :
Serial No.: 10/582,869 : Art Unit: 3721
: :
Filed: June 14, 2006 : Examiner: T. K. Truong
: :
For: METHOD AND DEVICE : Appeal No. _____
FOR PRODUCING AND :
FILLING CONTAINERS : :

**APPELLANT'S BRIEF
ON APPEAL UNDER 37 C.F.R. § 41.37**

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

For the appeal to the Board of Patent Appeals and Interferences from the decision dated August 13, 2008 of the Primary Examiner twice and finally rejecting claims 12-26 in connection with the above-identified application, Applicant-Appellant submits the following brief in accordance with 37 C.F.R. §41.37.

1. Real Party in Interest

The inventor, Bernd Hansen, has not assigned his rights, titles and interests in the patent application.

2. Related Appeals and Interferences

There are no other related appeals or interferences known to Appellants, Appellants' legal representative, or assignee, which may directly affect or be directly affected by or have a bearing on the Board's decision in the pending Appeal.

3. Status of Claims

Claims 1-11 are cancelled. Claims 12-26 are pending, are rejected, and are on appeal.

4. Status of Amendments

Subsequent to the August 13, 2008 final Office Action containing the final rejection, an Amendment was filed on November 13, 2008 and is to be entered, as indicated in the December 9, 2008 Advisory Action.

5. Summary of the Invention

Claim 12 covers a method of producing and filling containers (p. 4, lines 10-11; Figs. 1a-c, 2a-c). The method comprises the steps of extruding a tube 12 of softened plastic material into an open mold 16 (p. 4, lines 11-12; Figs. 1a, 2a), closing the tube 12 at its projecting end by closing the mold 16 to form a container bottom (p. 4, lines 17-19), separating the tube above the mold by a separating element 28 to form a filler opening 18 (p. 4, lines 13-15 and 23; Figs. 1a-b, 2a-b), moving the mold 16 with the tube 12 having the filler opening 18 in the mold 16 into a filling position (p. 4, lines 20-21; Fig. 1c, 2c), after the tube 12 is formed into the container by generating a pressure gradient acting on the tube 12 in the mold 16 to expand the tube 12 (p. 4, lines 21-24; Figs. 1a-c, 2a-c), filling the container through the filler opening 18 (p. 4, lines 24-25; Figs. 1c, 2c), sealing the filler opening 18 (p. 5, lines 10-13), covering the filler opening 18 by a

sterile barrier 30 at least from the formation time for the filler opening 18 to filling of the tube, and conveying at least one sterile medium in a direction of the filler opening 18 from the sterile barrier 30 by a media delivery device (p. 5, line 16, to p. 7, line 25; Figs. 1a-b, 2a-b).

Claim 24 covers a device for producing and filling containers (p. 4, lines 10-11; Figs. 1a-c, 2a-c). The device comprises at least one mold 16 having mold parts 14 movable between open and closed positions (p. 4, lines 12-14; Figs. 1a-b, 2a-b). An extruder 10 extrudes at least one tube 12 of softened plastic material into the mold 16 with the mold parts 14 in their open positions (p. 4, lines 11-12; Figs. 1a, 2a). Welding edges on the mold weld a projecting end of the tube to form a container bottom (p. 4, lines 17-19; Figs. 1a-b, 2a-b). A pressure gradient generator acts on and expands the tube 12 in the mold 16 (p. 4, lines 21-24; Figs. 1a-c, 2a-c). A separating element 28 forms a filler opening 18 by separating the tube 12, and is movable above the mold 16 between a retracted position and an operating position (p. 4, lines 13-15 and 23; Figs. 1a-b, 2a-b). A filling device 20 is located in a sterile filling space (p. 4, lines 21-25; Figs. 1a, 2c). A displacement device 24 moves the mold 16 between an extrusion position below the extruder 10 (Fig. 1a) and a filling position (Fig. 1c) below the filling device 20 in the sterile filling space (p. 4, line 10, to p. 5, line 1). A sterile barrier 30 covers the filler opening 18 of the tube 12 in the mold 16 from formation thereof to filling of the tube 12 in the sterile filling space (p. 5, lines 8-21; Figs. 1a-c, 2a-c). A media deliverer 36 is coupled to the sterile barrier 30, and conveys sterile medium in a direction of the filler opening 18 (p. 5, lines 22-27; Figs. 1a-b, 2a-b).

By performing the method and forming the device in this manner, sterile media flows from the sterile barrier in the direction of the filler opening to avoid contamination of the formed container. This method step and structure proactively deals with the problem of contamination, and involves significantly more than merely use of a healed sterile barrier.

6. Grounds for Rejection to be Reviewed on Appeal

Claim 14 stands rejected under 35 U.S.C. § 112, second paragraph, on the ground that “a specified over-pressure” is vague and indefinite.

Claims 12-14 and 17-25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by DE 10 063 282 C2 to Hansen.

Claims 15, 16 and 26 stand rejected under 35 U.S.C. §103 as being unpatentable over the Hansen German patent in view of U.S. Patent Publication No. US2002/0159915 A1 to Zelina.

Claims 12-14, 17, 20 and 22-25 stand rejected under 35 U.S.C. §102 as being anticipated by Japanese Patent Publication No. 60049919 A to Furui Koichi.

7. Argument

A. Rejection under 35 U.S.C. § 112, Second Paragraph,

is Untenable Since “Over-pressure” is Definite

Claim 14 stands rejected under 35 U.S.C. § 112, second paragraph, on the ground that “a specified over-pressure” is vague and indefinite.

As clearly indicated in the April 24, 2008 Amendment (p. 10, last two lines), as well as the application specification, this phrase means a pressure over ambient pressure as would be readily recognized by a person skilled in this art. As disclosed in the substitute specification on page 6, lines 6-8:

“Conveyance of the sterile medium 34, especially in the form of sterile air, to the cover plate 30 and through the media exit points 38 in the direction of the filler opening 18 is effected by excess or overpressure, i.e., a pressure greater than ambient air pressure.”

Additionally, such terminology (“over pressure”) is used in U.S. Patent Nos. 7,200,975 (column 8, line 3) and 7,401,417 (column 3, line 4), as well as other patents, demonstrating that such terminology is acceptable. Copies of these two patents are included in Appendix B.

In view of the specified and recognized definition, the term “over-pressure” is not vague or indefinite. Accordingly, reconsideration and reversal of the rejection of claim 14 as being indefinite is requested.

B. Rejection of Claim 12 under 35 U.S.C. § 102

by the Hansen German Patent is Untenable

Claim 12 is novel and nonobvious over the cited Hansen German patent by reciting a method for producing and filling containers wherein a sterile barrier covers the filler opening at least from the formation time of the filler opening to the filling of the tube, and wherein a sterile medium is conveyed at least in the direction of the filler opening from the sterile barrier by a media delivery device. Such covering of the filler opening in combination with the conveying of the sterile medium in the direction of the filler opening is not disclosed or rendered obvious by any of the cited patents.

Claim 12 stands rejected under 35 U.S.C. §102 as being anticipated by DE 10 063 282 C2 to Hansen, with Pub. No. US 2004/0065983 A1 used as a translation thereof. The Hansen German patent is cited for disclosing the basic blow-filling-sealing method. The sterile barrier 23 is interpreted as covering the opening of the tube from the time of its formation to its filling, with its heating of the surrounding air creating a sterile medium that is moved in the direction of the filler opening.

For this rejection, the cited Hansen German patent is interpreted as having a sterile barrier 23 in the form of a heated plate that heats the surrounding air so as to produce allegedly hot air as a sterile medium moved in a direction of a filler opening by a media delivery device also allegedly provided by the heated plate 23. However, as clearly illustrated in the Hansen German patent, heated plate 23 is located above mold halves 5 of mold 6 and is spaced above the mold 6 by the height of sterile filling space 31. The filler opening 15 formed in the tube by heated cutting edge 21 is positioned below the sterile filling space, as illustrated in Fig. 4 and described in paragraph [0020], lines 16-19 of the corresponding U.S. patent publication (US 2004/0065983 A1). To the extent that heated air may be generated by the heated plate 23, such heated air, being of lighter weight than the surrounding ambient air, will move upwardly in a direction away from the filler opening in a manner similar to hot air in a balloon. Any heated air surrounding the Hansen German patent plate 23 will not move downwardly in the direction of the filler opening 15 in the tubes to provide a sterilization effect on the openings of the tubes or containers. In contrast, the method of claim 12 requires conveying a sterile medium in a direction of the filler opening from the sterile barrier by the media delivery device or the media deliverer. Such method step is not disclosed or rendered obvious by the Hansen German patent, when considered alone or in combination with any of the other cited patent documents.

The Applicant's description of the Hansen German patent air flow as being away from the container opening is allegedly not supported by the disclosure of that patent. However, the fact that hot air rises, due to its lower density or weight relative to the surrounding colder air, provides clear and adequate support according to the basic laws of physics. No response or any comments in support of the rejection adequately refute this analysis or satisfy the Office's burden of showing inherency. The alleged expansion of the heat in all directions is not supported by any

analysis or evidence, or any specific disclosure in the Hansen German patent. The covering by the heated plate 23 of the cited Hansen German patent does not involve the delivery of a sterile medium, as claimed. The fact that the Hansen German patent plate 23 is heated to a germ-killing temperature, only makes that plate sterile but does not deliver a sterile medium in the direction of the filler opening to meet the claimed method step.

Since the Hansen German patent fails to disclose or render obvious the method step of conveying a sterile medium in the direction of the filler opening from a sterile barrier by a media delivery device, claim 12 is not anticipated by or rendered obvious in view of this Hansen German patent, considered alone or in any obvious combination with the other cited patents.

C. Rejection of Claim 24 under 35 U.S.C. § 102

Based on Hansen German Patent is Untenable

Claim 24 is novel and nonobvious over the Hansen German patent by reciting a device for producing and filling containers wherein a sterile barrier covers the filler opening at least from the formation time of the filler opening to the filling of the tube, and wherein a sterile medium is conveyed at least in the direction of the filler opening from the sterile barrier by a media delivery device. Such covering of the filler opening in combination with the conveying of the sterile medium in the direction of the filler opening is not disclosed or rendered obvious by any of the cited patents.

Claim 24 stands rejected under 35 U.S.C. §102 as being anticipated by DE 10 063 282 C2 to Hansen, with Pub. No. US 2004/0065983 A1 used as a translation thereof. The Hansen German patent is cited for disclosing the basic blow-filling-sealing apparatus. The sterile barrier 23 is interpreted as covering the opening of the tube from the time of its formation to its filling,

with its heating of the surrounding air creating a sterile medium that is moved in the direction of the filler opening.

For this rejection, the cited Hansen German patent is interpreted as having a sterile barrier 23 in the form of a heated plate that heats the surrounding air so as to produce allegedly hot air as a sterile medium moved in a direction of a filler opening by a media delivery device also allegedly provided by the heated plate 23. However, as clearly illustrated in the Hansen German patent, heated plate 23 is located above mold halves 5 of mold 6 and is spaced above the mold 6 by the height of sterile filling space 31. The filler opening 15 formed in the tube by heated cutting edge 21 is positioned below the sterile filling space, as illustrated in Fig. 4 and described in paragraph [0020], lines 16-19 of the corresponding U.S. patent publication (US 2004/0065983 A1). To the extent that heated air may be generated by the heated plate 23, such heated air, being of lighter weight than the surrounding ambient air, will move upwardly in a direction away from the filler opening in a manner similar to hot air in a balloon. Any heated air surrounding the Hansen German patent plate 23 will not move downwardly in the direction of the filler opening 15 in the tubes to provide a sterilization effect on the openings of the tubes or containers. In contrast, the device of claim 24 requires conveying a sterile medium in a direction of the filler opening from the sterile barrier by the media delivery device or the media deliverer. Such structure are not disclosed or rendered obvious by the Hansen German patent, when considered alone or in combination with any of the other cited patent documents.

Applicant's description of the Hansen German patent air flow as being away from the container opening is allegedly not supported by the disclosure of that patent. However, the fact that hot air rises, due to its lower density or weight relative to the surrounding colder air, provides clear and adequate support according to the basic laws of physics. No response or any

comments adequately refute this analysis or satisfy the Office's burden of showing inherency. The alleged expansion of the heat in all directions is not supported by any analysis or evidence or any specific disclosure in the Hansen German patent. The covering by the heated plate 23 of the cited Hansen German patent does not involve the media deliver of a sterile medium, as claimed. The fact that the Hansen German patent plate is heated to a germ-killing temperature, only makes that plate sterile but does not make that plate a media deliverer of a sterile medium in the direction of the filler opening, as claimed.

Since the Hansen German patent fails to disclose or render obvious a media deliverer coupled to the sterile barrier for conveying sterile medium in a direction of the filler opening, claim 24 is not anticipated by or rendered obvious in view of this Hansen German patent, considered alone or in any obvious combination with the other cited patents.

D. Rejection of Claim 12 under 35 U.S.C. § 102

over Japanese Patent Publication is Untenable

Claim 12 also stands rejected under 35 U.S.C. §102 as being anticipated by Japanese Patent Publication No. 60049919 A to Furui Koichi. The Furui Koichi patent publication is cited as disclosing a blow-mold-fill-seal method for forming a container where a sterile barrier 12 is allegedly provided to cover the tube opening from its formation to its filling and has a sterile medium in the form of aseptic air pressure that is moved in the direction of the filler opening.

As described in the previously submitted English translation of the Japanese publication and illustrated in the drawings thereof, a parison 6 is delivered from the head 5 of an extruder 1 between the dies 8 of mold 3. As the mold dies are closed, the parison is cut by cutter 9 to form a filler opening. After the cutting, the mold 3 moves to the blowing and injection mandrel station

beneath the filling head 10 of the molding and filling device 2. Only after the mold has been moved under the blow molding and filling head 10 located in the sterile chamber 12 is the filler opening previously formed by the cutter 9 covered by that sterile chamber. At the cutting operation under the extruder head 5 and during the movement of the mold with the opened parison therein to its position under blow molding and filling head 10, the formed filler opening in the parison 6 is not so covered and is exposed to contaminates until it reaches its final position under mandrel 11 and sterile chamber 12.

In contrast, claim 12 requires a method step wherein the sterile barrier covers the filler opening in the tube from its formation. Since the filling opening in the Japanese patent publication is not covered by the sterile barrier from the time of its formation to its filling, the subject matter of claim 12 or claim 24 is not anticipated or rendered obvious by the cited Japanese patent publication.

E. Rejection of Claim 24 under 35 U.S.C. § 102

over Japanese Patent Publication is Untenable

Claim 24 also stands rejected under 35 U.S.C. §102 as being anticipated by Japanese Patent Publication No. 60049919 A to Furui Koichi. The Furui Koichi patent publication is cited as disclosing a blow-mold-fill-seal method and apparatus for forming a container where a sterile barrier 12 is allegedly provided to cover the tube opening from its formation to its filling and has a sterile medium in the form of aseptic air pressure that is moved in the direction of the filler opening.

As described in the English translation and illustrated in the drawings of this Japanese publication, a parison 6 is delivered from the head 5 of an extruder 1 between the dies 8 of mold

3. As the mold dies are closed, the parison is cut by cutter 9 to form a filler opening. After the cutting, the mold 3 moves to the blowing and injection mandrel station beneath the filling head 10 of the molding and filling device 2. Only after the mold has been moved under the blow molding and filling head 10 located in the sterile chamber 12 is the filler opening previously formed by the cutter 9 covered by that sterile chamber. At the cutting operation under the extruder head 5 and during the movement of the mold with the opened parison therein to its position under blow molding and filling head 10, the formed filler opening in the parison 6 is not so covered and is exposed to contaminates until it reaches its final position under mandrel 11 and sterile chamber 12.

In contrast, claim 24 requires that the sterile barrier cover the filler opening in the tube from its formation. Since the filling opening in the Japanese patent publication is not covered by the sterile barrier from the time of its formation to its filling, the subject matter of claim 24 is not anticipated or rendered obvious by the cited Japanese patent publication.

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To support an anticipation rejection, all elements of the claim must be found in a single reference. In re Royka et al., 490 F.2d 981, 984, 180 USPQ 580, 582 (CCPA 1974). Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. In re Marshall, 578 F.2d 301, 304, 198 USPQ 344, 346 (CCPA 1978). Since all elements of claims 12 and 24 are not identically disclosed or described in the Hansen German patent or the Japanese patent, the rejection under 35 U.S.C. § 102 is untenable.

Accordingly, claims 12 and 24 are patentably distinguishable over the cited patents.

F. Rejections of Dependent Claims Based on Hansen German Patent

Claims 13-23 and 25-26 being dependent upon claims 12 and 24, respectively, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patent document.

(1) Claim 13

Claim 13 is further distinguished by the sterile medium being sterile air, inert gas and/or hydrogen peroxide. Since the Hansen German patent barrier merely heats surrounding air, such air is not sterile air, an inert gas or hydrogen peroxide.

(2) Claim 14

Claim 14 is further distinguished by the sterile medium being conveyed at a specified over-pressure (i.e., above ambient air pressure). The air heated by barrier 23 of the Hansen German patent is at ambient pressure, not an over-pressure, as claimed.

(3) Claims 15 and 16

Claims 15 and 16 are further distinguished by non-viable particles being exhausted by a suction device, or particularly a vacuum device (claim 16). Relative to this feature, the Zelina vacuum pump 112 is cited. However, such vacuum pump does not operate in conjunction with the dispensing of sterile media from a movable sterile barrier.

(4) Claim 17

Claim 17 is further distinguished by the sterile barrier being a plate-shaped cover element that provides the filler opening with sterile media until the container is filled below a sterile filling space. As noted above, the plate 23 of the Hansen German patent does not provide the

tube filler opening with a sterile medium, as claimed, since the hot air generated thereby will rise in a direction away from the filler opening and is not sterile.

(5) Claim 18

Claim 18 is further distinguished by the concurrent movement of the cover element and the separating element and the covering of the filler element until the filling of the container.

(6) Claim 19

Claim 19 is further distinguished by the synchronous movement of the parts of the mold with the cover element, as described in connection with the embodiment of Fig. 2a-c. Such embodiment is not disclosed or rendered obvious by the Hansen German patent.

(7) Claim 20

Claim 20 is further distinguished by the container being flushed across the filler opening by the sterile media. No such flushing or sterile media is provided by the alleged air heated by the barrier 23 of the Hansen German patent.

(8) Claim 21

Claim 21 is further distinguished by the container being partially filled with the sterile media. Due to the rising of the air heated by the barrier 23 in the Hansen German patent, no such filling will occur.

(9) Claims 22 and 23

Claims 22 and 23 are further distinguished by the specific temperature ranges recited therein.

(10) Claim 25

Claim 25 is further distinguished by the media deliverer comprising outlet ports and at least one inlet port in a plate shaped cover element. No such outlet ports and inlet port are disclosed in the Hansen German patent.

(11) Claim 26

Claim 26 is further distinguished by a suction frame that can enclose the cover element in one position. No such combination is disclosed or rendered by the Hansen German patent and/or the Zelina publication, for the reasons discussed above relative to claims 15-16.

G. Rejections of Dependent Claims Based on Japanese Publication

Claims 13-23 and 25-26 being dependent upon claims 12 and 24, respectively, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patent document.

(1) Claim 13

Claim 13 is further distinguished by the sterile medium being sterile air, inner gas and/or hydrogen peroxide.

(2) Claim 26

Claim 14 is further distinguished by the sterile medium being conveyed at a specified over-pressure (i.e., above ambient air pressure). Again, the Japanese publication is cited for such overpressure, but is deficit in failing to disclose an overpressure being emanated from a movable sterile barrier, as claimed.

(3) Claims 15 and 16

Claims 15 and 16 are not rejected based on the Japanese patent.

(4) Claim 17

Claim 17 is further distinguished by the sterile barrier being a plate-shaped cover element that provides the filler opening with sterile media until the container is filled below a sterile filling space. As noted above, the chamber of the Japanese patent does not provide a plate-shaped cover element, but is box-shaped.

(5) Claims 18 and 19

Claims 18 and 19 are not rejected based on the Japanese patent.

(6) Claim 20

Claim 20 is further distinguished by the container being flushed across the filler opening by the sterile media. No such flushing is provided by a barrier that covers the filler opening from forming in the Japanese patent.

(7) Claim 21

Claim 21 is not rejected based on the Japanese patent.

(8) Claims 22-23

Claims 22 and 23 are further distinguished by the specific temperature ranges recited therein.

(9) Claim 25

Claim 25 is further distinguished by the media deliverer comprising outlet ports and at least one inlet port in a plate shaped cover element. No such inlet port is disclosed in the Japanese patent.

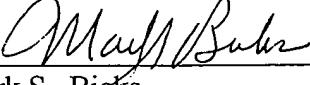
(10) Claim 26

Claim 26 is not rejected based on the Japanese patent.

8. Conclusion

In view of the foregoing, Applicant-Appellant submits that the rejections of the claims under 35 U.S.C. §§ 112, 102(b) and 103 and are untenable. Thus, Applicant-Appellant requests that these rejections be reversed.

Respectfully submitted,



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Dated: February 11, 2009

APPENDIX A - CLAIMS ON APPEAL

12. A method of producing and filling containers, comprising the steps of:
- extruding a tube of softened plastic material into an open mold;
- closing the tube at a projecting end thereof by closing the mold to form a bottom of a container;
- separating the tube above the mold by a separating element to form a filler opening;
- moving the mold with the tube having the filler opening in the mold into a filling position;
- after the tube is formed into the container by generating a pressure gradient acting on the tube in the mold to expand the tube, filling the container through the filler opening;
- sealing the filler opening;
- covering the filler opening by a sterile barrier at least from a formation time for the filler opening to filling of the tube; and
- conveying at least one sterile medium in a direction of the filler opening from the sterile barrier by a media delivery device.

13. A method according to claim 12 wherein

the sterile medium is air, inert gas and/or hydrogen peroxide.

14. A method according to claim 12 wherein

the sterile medium is conveyed at a specified over-pressure in the direction of the filler opening.

15. A method according to claim 12 wherein

non-viable particles are exhausted by a suction device.

16. A method according to claim 15 wherein

the suction device is a vacuum device.

17. A method according to claim 12 wherein

the sterile barrier comprises a plate-shaped cover element that covers the filler opening after separation of the tube, and provides the filler opening with the sterile media until the container is filled below a sterile filling space.

18. A method according to claim 17 wherein

the cover element moves together with the separating element during separation of the tube, and does not clear the filler opening until filling of the container.

19. A method according to claim 17 wherein

the cover element moves synchronously with parts of the mold, and does not clear the filler opening until filling of the container.

20. A method according to claim 12 wherein

the container is flushed across the filler opening by the sterile medium by the media delivery device.

21 A method according to claim 12 wherein

the container is partially filled with the sterile medium by the media delivery device.

22. A method according to claim 12 wherein

the sterile barrier and the sterile medium are heated to a temperature higher than 120° C.

23. A method according to claim 12 wherein

the sterile barrier and the sterile medium are heated to a temperature in a range of 150° C to 200° C .

24. A device for producing and filling containers, comprising:

at least one mold having mold parts movable between open and closed positions;

an extruder for extruding at least one tube of softened plastic material in said mold with said mold parts in said open positions;

welding edges on said mold parts for welding a projecting end of the tube to form a container bottom;

a pressure gradient generator acting on and expanding the tube in said mold;

a movable separating element for forming a filler opening by separating the tube, said separating element being movable above the mold between a retracted position and an operating position;

a filling device in a sterile filling space;

a displacement device moving said mold between an extrusion position below said extruder and a filling position below said filling device in said sterile filling space;

a sterile barrier covering the filler opening of the tube in said mold from formation thereof to filling of the tube in said sterile filling space; and

a media deliverer, coupled to said sterile barrier, for conveying sterile medium in a direction of the filler opening.

25. A device according to claim 24 wherein

said sterile barrier comprises a plate-shaped cover element; and

said media deliverer comprises media outlet ports and at least one inlet port in said cover element.

26. A device according to claim 25 wherein

said media deliverer comprises a suction frame enclosing said cover element in at least one position of said cover element.

APPENDIX B - EVIDENCE

(1) U.S. Patent No. 7,200,975

(2) U.S. Patent No. 7,401,417



US007401417B2

(12) **United States Patent**
Rydell et al.

(10) **Patent No.:** US 7,401,417 B2
(45) **Date of Patent:** Jul. 22, 2008

(54) **METHOD AND A DEVICE FOR DRYING OR HEAT TREATMENT OF A WEB-FORMED MATERIAL**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 42 days.

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(2), (4) Date: Dec. 15, 2005

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34/510

(58) **Field of Classification Search** 34/77,
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34/219, 451, 487, 507, 510, 131; 432/59,
432/72

See application file for complete search history.

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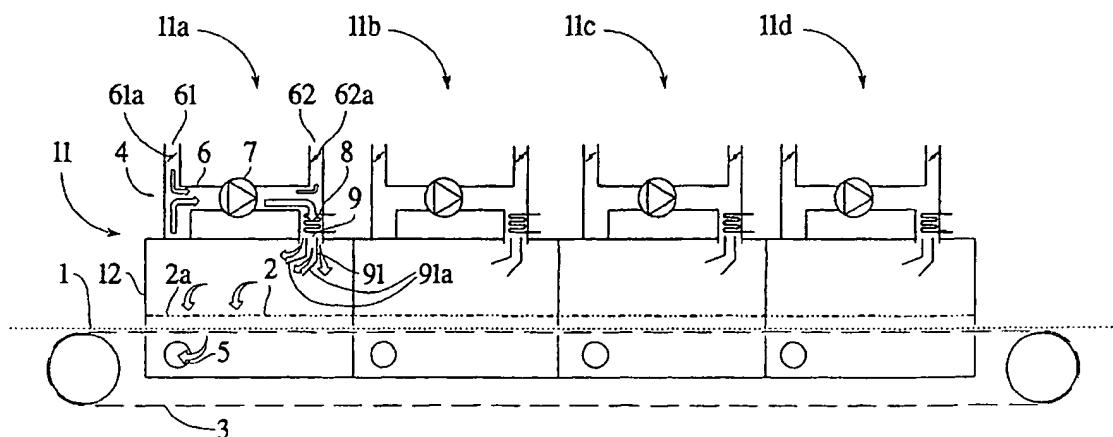
Primary Examiner—Jiping Lu

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(57) **ABSTRACT**

When drying a web-formed material, the web-formed material is passed, in contact with a gas-permeable dryer screen, through a drying plant. One or more fans blow hot process air against, and through, the web-formed material in order to dry it. A chamber, surrounding the fan or the fans, has a limiting surface that is essentially parallel to the surface of the web-formed material. This limiting surface has an opening that extends essentially across the whole width of the web-formed material. A distributing member, in the form of an arcuate perforated, sheet-formed element, placed outside the chamber, covers the opening completely. With the distributing member a first flow of process air is divided into a large number of jets, distributed over essentially the whole of the angular area that faces the web-formed material. Thereafter, the jets are allowed to mix with one another again to form a second flow of process air, which is passed through a flat perforated, sheet-formed element that is positioned close to and extends over essentially the whole of the web-formed material, and then against and through the web-formed material lying on the gas-permeable dryer screen.

9 Claims, 3 Drawing Sheets





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(12) **United States Patent**
Till

(10) Patent No.: **US 7,200,975 B2**
(45) Date of Patent: **Apr. 10, 2007**

(54) BEVERAGE BOTTLING PLANT FOR
FILLING BOTTLES WITH A LIQUID
BEVERAGE FILLING MATERIAL, HAVING
A TRANSFER DEVICE FOR THE TRANSFER
OF CONTAINERS FROM A TRANSFER
STARWHEEL TO THE CAROUSEL OF A
CONTAINER HANDLING MACHINE

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patent is extended or adjusted under 35
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B65B 3/04 (2006.01)

(52) **U.S. Cl.** 53/253; 53/111 RC; 53/167;
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(58) **Field of Classification Search** 53/111 RC,
53/266.1, 415, 510, 167, 201, 282, 300, 253;
141/9, 101; 198/441

See application file for complete search history.

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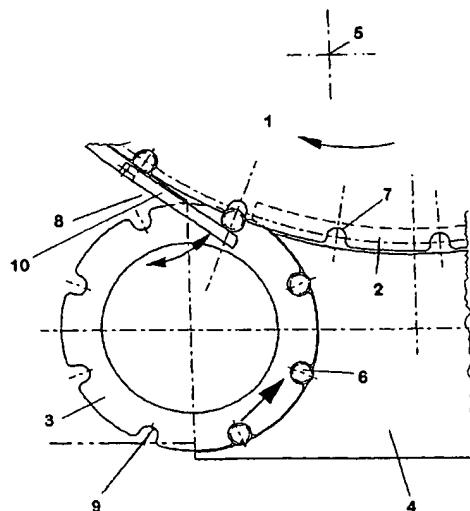
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(57) **ABSTRACT**

A beverage bottling plant for filling bottles with a liquid beverage filling material, having a transfer device for the transfer of containers from a transfer starwheel to the carousel of a container handling machine. A transfer device for container handling machines such as fillers, rinsers or cappers for the handling of containers with a neck ring, with a circulating carousel on which there are handling spaces for the container, with at least one infeed starwheel, whereby the transfer device comprises a rigid transfer arm and optionally a drive system to move the transfer arm back and forth.

20 Claims, 13 Drawing Sheets



APPENDIX C – RELATED PROCEEDINGS

None.